

1 Mark S. Pollock SBN 80539
2 C. Evangeline James SBN 190205
3 Law Offices of Mark S. Pollock
4 1766 Third Street
5 Napa, CA 94559
6 Telephone (707) 257-3089
7 Facsimile (707) 257-3096

8 Attorneys for Plaintiff
9 GARRIL PAGE

10 UNITED STATES DISTRICT COURT
11 NORTHERN DISTRICT OF CALIFORNIA

12 GARRIL PAGE,

CASE NO: C 05 4358

13 Plaintiffs,

14 v.

CONSENT DECREE AND ORDER

15 SANITARY DISTRICT NO. 1 OF MARIN
16 COUNTYDOES 1-10, Inclusive,

17 Defendants.
18 _____/

19 Whereas, on or about January 3, 2005 plaintiff Garril Page ("PAGE"), an individual, on behalf
20 of herself and the general public gave notice of her intent to file this action alleging that defendant
21 Sanitary District No. 1 of Marin County, a governmental entity, (Hereinafter, RVSD") was in violation
22 of the Clean Water Act ("CWA"), 33 U.S.C. §1251 et seq and,

23 WHEREAS the Complaint requests declaratory and injunctive relief, the imposition of civil
24 penalties for each violation of the aforementioned laws and statutes, and an award to PAGE of her
25 litigation costs, including reasonable attorney fees and costs; and,

26 WHEREAS the parties desire to resolve their differences and avoid further litigation, and agree

1 that it is in their mutual interests to enter into this Consent Decree setting forth the terms and conditions
2 appropriate to resolving the allegations set forth in the Complaint; and,

3 WHEREAS RVSD has taken and shall take steps to resolve the violations complained of by
4 PAGE in the Complaint;

5 WHEREFORE, PAGE and RVSD have consented to the entry of this Consent Decree and
6 Order without trial of any issues and hereby stipulate that, in order to settle the claims alleged against
7 RVSD in the Complaint, this Consent Decree should be entered. This Consent Decree constitutes a
8 settlement of disputed claims. It is not an admission of liability for any claims or an admission of any
9 fact, alleged in the complaint in this action.

10 **PREAMBLE** RVSD owns and/or operates the sewer collection and conveyance lines and pump
11 stations located in the communities of San Anselmo, Fairfax, Ross, Greenbrae, Kentfield, Kent
12 Woodlands, and Larkspur, as well as all designated unincorporated areas within the area of The Ross
13 Valley, and the pump station and force main at San Quentin, in Marin County, California.

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TERMS OF CONSENT DECREE

17 I. RVSD is hereby ordered to implement the following:

18 A. Capacity Management, Operations & Maintenance Based Program (CMOM): RVSD is
19 committed to the CMOM approach to wastewater system management which began with (yet
20 unpublished) draft regulations proposed by the U.S. Environmental Protection Agency. CMOM
21 is an aggressive and proactive approach which focuses on prevention of sanitary sewer
22 overflows through preventive maintenance of collection systems. In July 2005, in following
23 with the CMOM philosophy, the San Francisco Bay Region of the Regional Water Quality
24 Control Board mandated collection agencies within its jurisdiction, including RVSD, to develop
25 a Sewer System Management Plan (SSMP). This SSMP must document activities that RVSD

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1 will use to 1) Maintain and improve the condition of its collection system infrastructure; 2) Cost
2 effectively minimize infiltration and inflow (I/I); and 3) Minimize the number and impact of
3 sanitary sewer overflows (SSOs) that occur. RVSD has implemented a program that has, as one
4 of its components, development of this SSMP. The RVSD program extends well beyond this
5 requirement in an effort to quickly and cost-effectively address the most critical issues related to
6 capacity, maintenance, and reducing SSOs.

7
8 On October 4, 2005, the Board of Directors of RVSD adopted the proposal for Program
9 Management Services – Sewer System Assessment and Capital Project Planning prepared by
10 RMC Water and Environment (Sewer System Assessment). A detailed scope of work and
11 schedule of deliverables is attached. As documentation of the items in this Consent Decree that
12 shall be completed as part of the Sewer System Assessment, RVSD shall submit to Garrill Page,
13 the RWQCB, and the EPA all final deliverables defined in the Sewer System Assessment scope
14 of work.

15
16 To augment its ongoing aggressive short-term efforts to repair or replace existing infrastructure,
17 RVSD is, through the Sewer System Assessment, establishing a long-term capital improvement
18 strategic plan that will enable prioritized, continuous rehabilitation of collection system
19 components, with an emphasis on projects that relieve the most serious capacity issues first, and
20 thereby have the greatest immediate effect on reducing SSOs. This effort is being completed in
21 parallel with an ongoing study by MWH entitled SHECAP (System Hydraulic Evaluation and
22 Capacity Assurance Plan). The combined efforts of SHECAP and the Sewer System
23 Assessment utilize system information that is being documented in a GIS-based system known
24 as HIMCAD (History Inventory Maintenance and Condition Assessment Database). RVSD
25 shall pursue these programs without delay, as discussed herein.

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2 B. Fats, Oils, and Grease Control: RVSD shall survey food service establishments, especially
3 restaurants, and, through the Sewer System Assessment, implement actions to establish a FOG
4 control program that follows SSMP guidelines, including a grease education program. Proper
5 management of grease and preventing it from entering the collection system is an essential
6 component in reducing spills. The enhancements described herein shall be initiated as of the
7 effective date of this Consent Decree and Order, and shall be completed in accordance with the
8 schedules set forth in the Sewer System Assessment. This task addresses the requirements of
9 Element 4, Fats, Oils and Grease (FOG) Control Program, of the SSMP.

10

11 C. Asset Identification: Upon implementation of this decree, RVSD shall implement a
12 comprehensive facility location effort for its collection system. All major gravity collection and
13 conveyance system components shall be located, and accessible manholes documented. Force
14 mains and pump stations shall be located based on as-built drawings. RVSD shall use Real Time
15 Kinetic Global Positioning System (RTK-GPS) to obtain manhole locations and elevations.
16 Pipe invert depths shall be measured manually. All of the location and condition assessment data
17 shall be stored electronically in RVSD's geo-database. This task provides the information
18 described in Element 6, Measures and Activities, of the SSMP.

19

20 D. Short and Long Term Funding Plans: RVSD shall replace Ordinance 48, Annual Rate Increase
21 Plan that expires in June 2006, with a new 1-year interim plan in conjunction with RVSD's
22 standard process for rate setting for fiscal year 2006-2007. RVSD shall update this plan to a
23 long-term plan by June 2007. RVSD shall complete a financial analysis of long term cash
24 requirements and determine the necessity to approve a bond measure not later than May 31,
25 2007. This task provides the information described in Element 6, Measures and Activities, of

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1 the SSMP.

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3 E. Preventive Maintenance: In conjunction with CCTV described below, onsite inspection data,
4 and asset information, RVSD shall update the maintenance program for the assets currently in
5 place and utilized in the collection systems. Areas with chronic problems resulting from system
6 age, design, breakdowns, grease, roots, debris, seasonal impacts of infiltration/inflow (I/I), or
7 capacity problems shall receive additional maintenance to help prevent problems from escalating
8 into permit violations. The preventive maintenance program shall be modified through the
9 Sewer System Assessment to provide prioritized, continuous infrastructure maintenance, repair
10 or replacement of system components based on equipment operational data, historical data,
11 manufacturer's recommendations, or known maintenance needs. The program shall track and
12 identify trends within the system, and encompass all assets within each of the collection systems.
13 Initially, the emphasis shall be on components deemed critical to the successful and continued
14 availability within each system including pump station components, controls, valves, actuators,
15 emergency generators, supervisory control and data acquisition systems (SCADA); gravity lines,
16 force mains with respect to integrity, grease, roots and debris; and manholes with respect to
17 integrity, grease and debris. The preventive maintenance program described herein shall be
18 implemented concurrent with the schedule set forth for the Sewer System Assessment, which
19 shall be in progress as of the effective date of this Consent Decree and Order. This task exceeds
20 the requirements of the preventive maintenance component of Element 6, Measures and
21 Activities, of the SSMP.

22
23 F. Asset Inspection Program: An asset inspection program is a key to asset maintenance and
24 management. RVSD shall develop and implement an asset inspection program that includes the
25 following elements: evaluation of historic asset inspection data; a systematic annual CCTV
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1 program that focuses on potential high-maintenance and I/I problem areas, and covers at least
2 4 miles of pipe annually; inspection of manhole structures. The program shall identify
3 preventive maintenance needs, identify early stages of asset problems, identify causes of
4 underperforming assets, and identify areas of potential failure. The program should utilize a
5 point scale condition rating system and identify appropriate corrective measures for each
6 inspected asset. Inspections shall begin in March 2006 and continue throughout the lower flow
7 period of March through November. This task exceeds the more aggressive or proactive
8 approach described in Element 6, Measures and Activities, of the SSMP.

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10 G. Hydraulic Modeling: To ensure adequate capacity to convey base and peak flows, a network
11 hydraulic model shall be developed. The model shall be used by RVSD in determining the peak
12 capacity of each system, examining the current status, identifying and locating undersized areas
13 or components of the system, and locating areas of high I/I. The hydraulic model shall also
14 identify areas of the system where the effective capacity is less than the designed capacity.
15 RVSD agrees to have the hydraulic model operational at the time of approval of this Consent
16 Decree by the court. This task provides the information described in Element 8, Capacity
17 Management, of the SSMP.

18
19 H. Capital Improvement Program: The CIP shall be used to establish long term planning options,
20 which, when implemented, shall prioritize and address potential problems, in an effort to prevent
21 unpermitted discharges. The results of the Sewer System Assessment, in conjunction with the
22 SHECAP, shall be used to establish priorities for sewer repair and replacement. Known trouble
23 spots that have been identified by the District Staff, SHECAP studies, and the Sewer System
24 Assessment shall be prioritized to reduce the likelihood of discharges and resulting
25 environmental impacts. RVSD shall replace or repair two miles of sewer pipe, not including
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1 unscheduled emergency repair/replacement, per fiscal year, beginning in January 2006 (half-way
2 through FY 2006), to be continued over the next 10 years. RVSD may replace or repair other
3 facilities in lieu of sewer pipe if such replacements or repairs are deemed more critical than
4 pipeline replacements to relieving potential system overflows. This task provides an aggressive
5 approach to the capital improvement plan described in Element 8, Capacity Management, of the
6 SSMP.

7
8 I. Computerized Maintenance and Management System (CMMS): RVSD shall implement a
9 CMMS geographic information system (GIS) based asset maintenance and management tool.
10 The CMMS shall utilize the data contained in the geo-database, and shall provide inventory
11 management, support, and record service requests and work orders, track and schedule asset
12 inspections, and shall implement compliance with reporting requirements. The CMMS
13 described herein shall be implemented within one year of the effective date of this Consent
14 Decree and Order. This task exceeds the requirements of the SSMP.

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16 J. CIP Implementation: Prior to implementation of the Capital Improvement Strategic Plan in
17 January 2007, RVSD shall employ or engage the services of one full time equivalent
18 professional licensed engineer to implement and oversee implementation of the Plan. The
19 RVSD District Manager shall be responsible for implementation of the terms of this Order.
20 This task exceeds the requirements of the SSMP.

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22 K. Document Accessibility: RVSD shall provide, in a place within RVSD's offices during regular
23 business hours, for review by the public, documentation from studies used in determining
24 projects for the Long-Range CIP. This information shall be available to members of the public
25 upon reasonable notice intended to allow District staff to access said documentation without
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1 interrupting the ordinary course of the business of the District. This task exceeds the
2 requirements of the SSMP.

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4 L. Public Education Program: RVSD shall begin its public information and outreach programs,
5 including maintaining a regularly updated website for public information and education. This
6 site must include, but is not limited to:

- 7 • How to identify a sewer overflow or breach of the public sewer;
- 8 • The importance of notifying proper authorities of such occurrences;
- 9 • Identification and how to contact the proper Authorities;
- 10 • Sewage and its relation to human health hazards;
- 11 • Sewage and its relationship to environmental hazards;
- 12 • Sewage and the methods to mitigate its impact on public health and the environment;
- 13 • Public vs. private ownership and maintenance, and the importance of periodic inspection
14 and proper maintenance of private sewer laterals.

15 Implementation of this program shall begin not later than 90 days after entry of this consent
16 decree and order. In addition, from time to time, such information and such special
17 informational topics shall be addressed in the form of periodic newsletters to all customers,
18 which shall also be posted on the website, thereby expanding its programs to educate all
19 members of the public of the importance of maintaining a healthy wastewater collection system
20 and its relationship to keeping Corte Madera Creek clean. This task exceeds the requirements
21 of the SSMP.

22
23 M. Flow Reduction Program through Lateral Replacements: Private lateral deficiencies cause a
24 significant amount of the I/I into the collection system. Within 10 days of the effective date of
25 this Consent Decree and Order and as planned through the Sewer System Assessment, RVSD
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1 shall initiate a lateral replacement investigation that evaluates potential options for
2 implementing inspection and repair mandates for private laterals. This task exceeds the
3 requirements of the SSMP. This investigation shall consider similar programs in place within
4 California.

5
6 N. Healthy Waterways Study (Study): RVSD shall fund two study programs to be conducted by
7 an organization or entity as mutually agreed between RVSD and Garril Page, as an independent
8 monitor (Monitor). The work shall help in the development of scientific rigor as it applies to
9 the tributaries and waterways of the Ross Valley and the ongoing assessment of where sewage
10 from a number of sources may be exfiltrating into the environment. The primary creeks of the
11 Ross Valley are: Cascade, San Anselmo, Fairfax, Sleepy Hollow, Ross, Tamalpais, Larkspur,
12 and Corte Madera.

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14 The primary objective of the Studies shall be to indicate the occurrence of caffeine or another
15 marker, which is associated with human waste and can be accurately measured in environmental
16 sampling using available technologies. Sampling sites may include creeks, streams, gullies, and
17 storm drains.

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19 It is understood that human waste can and does enter these waterways from sources that are not
20 under the control of RVSD, such as private sewer laterals and septic systems. Therefore,
21 identification of these markers and subsequent actions as described below are for continued
22 study of general water quality only, and demonstrate cooperation in the protection of public
23 health, as such testing indicates the presence of these markers, but not their physical source.

24
25 a. Semi Annual Study: The Monitor shall take wet and dry season samplings at sample sites
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1 that are recommended by a third party agreed upon by Page and RVSD and shall work with
2 Marin County Public Health Laboratory, the EPA water testing laboratory, or any similarly
3 qualified water testing laboratory.

4
5 The report of this Study shall include a matrix showing test dates, locations, and results. Within
6 the two-year period specified above and as part of the Study, the Monitor shall conduct
7 follow-up sampling for fecal coliform when the initial samples indicate the presence of caffeine.

8 RVSD agrees to provide the Marin County Environmental Health Services (EHS) with
9 waterways quality testing results concurrently with obtaining the results, and to aid EHS in
10 taking appropriate efforts to protect the public's usage of beneficial waters, including requesting
11 of EHS placement of prominent warning signs at waterways determined to present a public
12 health risk based on the fecal coliform levels disclosed by the sampling; the warning signs will
13 be removed when further sampling indicates the affected waterways are safe for normal
14 beneficial uses.

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16 The study shall be completed within two (2) years of the effective date of this Consent Decree
17 and Order. The total amount of funds to be expended for the study, including project scoping,
18 design, sampling, analysis, review and write-up are estimated at, and shall not exceed \$20,000.

19 This task exceeds the requirements of the SSMP
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- 21 O. Reporting: Within 90 days of the effective date of this Consent Decree and Order RVSD shall
22 utilize comprehensive, informative protocols for the initial field reporting of collection system
23 overflows in the system. Information from field reporting shall be coordinated through the use
24 of the Computerized Maintenance Management System (CMMS). These protocols shall
25 include the following:
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1. The name of the person who reported the incident;
2. The location of the overflow;
3. The estimated volume and duration of the overflow;
4. A summary of the measures taken to address the overflow, including remediation, cleanup and repair actions;
5. A summary of measures taken to assess risk to public health and the environment and any associated notification;
6. Information as to whether sampling for total and fecal coliform in the receiving waters where an overflow reaches a flowing surface stream or the San Francisco Bay was performed, and whether results were submitted.

P. In light of unprecedented and unpredictable storms, which occurred on or about December 30 and 31, 2005 and resulting storm water flooding, which may have affected RVSD system, RVSD will make best efforts, in the event of future, similar storm events, to provide early warning, in the form of signage, at locations which may be known or reported to the District to be potential locations for exposure of the public to system surcharges. Said signage shall caution the public to avoid any such areas until further notice. In interpreting such best efforts, it shall be taken into account that all available District personnel may be engaged in activities to remediate and/or repair components of the system, on an emergency basis, and such activity shall be given priority over the posting of signs.

II. Within 15 days from the entry date of this Consent Decree and Order RVSD shall pay GARRIL PAGE \$90,000.00 for her attorney's' fees and costs.

III. GARRIL PAGE agrees not to file a suit or action in a court of competent jurisdiction against RVSD for Clean Water Act violations that occur for an ten (10) year period following execution

1 from the effective date of this Consent Decree and Order except in the event of a breach of the
2 agreement. GARRIL PAGE is free to seek compliance of this Consent Decree and Order
3 through properly noticed motions with this court. However, prior to filing any motion to
4 compel compliance, GARRIL PAGE must give thirty (30) days notice to RVSD and allow
5 RVSD an additional thirty (30) days to respond. Garril Page, on behalf of herself, her heirs,
6 successors and assigns, hereby releases and discharges, generally and specifically, RVSD from
7 any and all claims, causes of action, allegations, or assertions of any kind arising from those
8 matters arising from or alleged in the aforementioned complaint, filed on or about October 25,
9 2005, or which could have been alleged in said complaint by amendment through and up to the
10 date of filing of this Consent Decree.

11
12 IV. Good faith and best efforts are an implied term regarding each party's duty to comply with the
13 terms of this Consent Decree and Order.

14
15 V. Any member of the public, upon reasonable notice to RVSD shall have access to
16 non-privileged documents and/or information regarding its compliance with the terms of this
17 Consent Decree and Order. Except where costs of copying and administrative time are overly
18 burdensome to RVSD, any costs associated with providing said verification of compliance shall
19 be born by RVSD.

20
21 VI. Should any provision of this Consent Decree be held invalid or illegal, such illegality shall not
22 invalidate the remainder of this Consent Decree. In that event, this Consent Decree shall be
23 construed as if it did not contain the invalid or illegal part, and the rights and obligations of the
24 parties shall be construed and enforced accordingly.

1 VII. Each signatory of this Consent Decree signing on behalf of another, warrants that he or she has
2 the authority to sign on behalf of said person or entity and on behalf of all persons covered by
3 this Consent Decree. This Consent Decree may be executed in counterparts with each
4 counterpart being interpreted as an original.

5

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7 VIII. Each party consents to the entry of this Consent Decree and Order subject to the provisions of
8 Clean Water Act § 505(c)(3) that "[n]o consent judgment shall be entered in an action in which
9 the United States is not a party prior to forty-five (45) days following the receipt of a copy of the
10 proposed consent judgment by the Attorney General and the Administrator [of the U.S. EPA]."
11 33 U.S.C. §§ 1354(c)(3).

12

13 IX. On February 22nd, 2006, GARRIL PAGE sent this proposed Consent Decree and Order by
14 mail to the U.S. Attorney General and the Administrator of the U.S. EPA. Upon written
15 notification by U.S. EPA and/or U.S. Department of Justice that those agencies' reviews have
16 concluded, or the expiration of the forty-five (45) day period, whichever is the earlier, the Court
17 shall enter this Consent Decree and Order.

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19 X. This Court shall retain jurisdiction from the date of entry of this Consent Decree and Order
20 through the date of termination of this Consent Decree and Order for the purposes of (1)
21 resolving any dispute of this Decree, and (2) disposing of any motion to enforce this Decree, or
22 of any contempt petition, filed on or before the date of termination.

23

24 XI. In entering into and executing this Consent Decree no party admits liability for any action
25 referenced herein or alleged in that document entitled Complaint for Injunctive Relief, Civil

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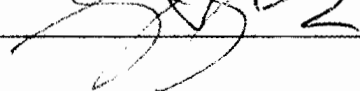
1 Penalties filed herein on or about October 25, 2005.

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3 XII. In the event any action is brought to enforce the terms of this Consent Decree, the prevailing
4 party or parties to any such action shall be entitled to recover from the other party or parties, in
5 addition to any damages, all attorney's fees and costs incurred therein.

6 The undersigned agree to the foregoing:

7 Dated: 2/22/06

Garril Page
Plaintiff

8
9 By: 

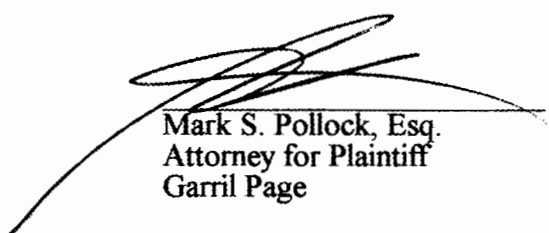
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12 Dated: 2/23/06

Sanitation District No. 1 of Marin County
Defendant

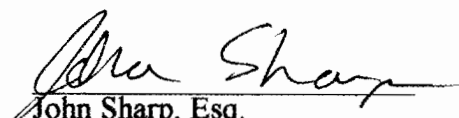
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14 By: 

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17 APPROVED AS TO FORM:

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19 Dated: 2/21/06


Mark S. Pollock, Esq.
Attorney for Plaintiff
Garril Page

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22 Dated: 2/23/06

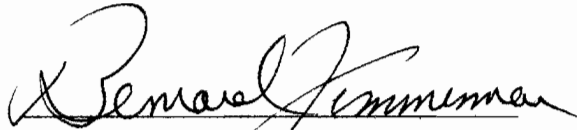

John Sharp, Esq.
Attorney for Defendant
Sanitation District No. 1 of Marin County

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ORDER

APPROVED AND SO ORDERED,

DATED: 24 April 06



Honorable
United States District Judge



**ROSS VALLEY SANITARY DISTRICT
SEWER SYSTEM ASSESSMENT AND CAPITAL IMPROVEMENT PLANNING
DETAILED SCOPE OF WORK**

RMC's scope of services for providing program management and strategic planning for the Ross Valley Sanitary District is presented below. The work is divided into four major tasks:

- Task 1 – Program Management and Coordination
- Task 2 – Facilities Master Plans
- Task 3 – Sewer System Management Planning
- Task 4 – Capital Improvement Strategic Plan

For each task, the scope provides a statement of the task objective, a description of the work to be performed for each subtask, and a list of key deliverables.

Task 1: Program Management and Coordination

Objective: Assist the District Manager in overall management and coordination of program elements, activities, and consultants.

As program manager, RMC will serve as an extension of the District's staff, and will assist the District Manager in coordinating the various activities and consultants involved in the sewer system improvement program. This coordination will focus on ensuring that all activities are aligned with the District's program goals and objectives, that the various program components are executed cost-effectively while addressing system quality and longevity, and that the program elements utilize consistent evaluation and cost criteria. Coordination will also help minimize any potential overlap of work efforts among related projects. RMC's specific work items under this task will include:

Subtask 1.1 – Review Existing Information. RMC will review existing information related to the Program, including existing technical memoranda, reports, and studies.

Subtask 1.2 – Prepare Work Plan. RMC will prepare a formal Work Plan for the program. The Work Plan will include the scopes of services for each of the program elements and the required coordination between various tasks and activities; a list with names, roles, and contact information for all program team members; lines of communication; an overall program schedule; quality assurance/quality control procedures; and documentation procedures and format.

Subtask 1.3 – Program Coordination Meetings. RMC will conduct weekly conference calls and monthly meetings with the District and District's consultants to coordinate program activities and discuss technical issues. Not all staff and consultants will need to participate in each conference call or attend each meeting; required or recommended participants will be identified based on specific topics to be addressed. The first coordination meeting will serve as a program kickoff meeting to be attended by all program staff and consultants. RMC will prepare and distribute an agenda and minutes for each conference call and coordination meeting.

Subtask 1.4 – Public Outreach Coordination. RMC will work with the District’s public outreach consultant in the preparation of informational materials and presentations. RMC will provide technical information about program studies and activities to be included in the materials and presentations, and will assist the public outreach consultant in formulating ideas for presentation and discussion of issues, findings, and recommendations. RMC will also coordinate with, and prepare and make presentations to community groups or other stakeholder groups, including Central Marin Sanitation Agency, as requested by the District.

Subtask 1.5 – Board Workshops and Presentations. RMC will prepare for and conduct or facilitate workshops and presentations to the District’s Board of Directors related to the sewer system improvement program. In addition to formal workshops and presentations, at least one member of the RMC senior leadership team will attend each Board meeting during the course of this program management contract for purposes of assisting the District Manager in answering questions or addressing issues raised by the Board or members of the public in attendance at the meetings.

Subtask 1.6 – Progress Meetings. RMC will meet monthly with the District Manager to report on program progress and discuss specific issues of concern. Additional discussions will take place by phone or email as needed.

Subtask 1.7 – Program Budget and Schedule. RMC will develop a Program Master Schedule, and will manage program components to meet milestones set forth in this schedule. Similarly, RMC will monitor and control individual project budgets. RMC will report and discuss any significant deviation from the Program Master Schedule or project budgets with the District Manager, and will assist the District Manager in the development of a plan to remedy any such deviations.

Subtask 1.8 – RMC Project Administration. RMC will be responsible for resource planning, preparation of monthly invoices and status reports to the District, and management and administration of RMC subconsultants.

Deliverables: Draft and Final Work Plans, meeting agendas and minutes, presentation and workshop materials, Master Schedule and updates, monthly project status reports.

Task 2: Facilities Master Plans

Objective: Assess the need for rehabilitation, replacement, and upgrade of sewer system facilities and develop recommended capital improvement projects.

RMC will prepare Sewer, Force Main, and Pump Station Replacement Master Plans to develop capital improvement recommendations for system facilities. RMC will work directly with District consultants under contract to prepare elements of these Master Plans, and conduct specific technical tasks as needed to supplement previous or on-going studies. RMC’s work items under this task will include:

Subtask 2.1 - Sewer Replacement Master Plan. The Sewer Replacement Master Plan will address capital requirements for providing adequate hydraulic capacity in the gravity

sewer system and for rehabilitating existing sewers to address maintenance problems, structural deficiencies, and infiltration/inflow.

Subtask 2.1.1 – Sewer Hydraulic Analysis and Capacity Assurance Plan. RMC will review the findings and recommendations of the SHECAP project (being prepared by MWH) with respect to recommended gravity sewer improvement projects needed to alleviate capacity deficiencies in the trunk sewer system.

Subtask 2.1.2 – Develop Condition Assessment Methodology. Under this subtask, RMC will develop a sewer condition assessment and rehabilitation decision methodology to be used to identify specific sewer rehabilitation/replacement projects and estimate long-term sewer rehabilitation and replacement needs. RMC will recommend standard inspection codes and rating criteria and develop guidelines for sewer inspection procedures and data collection. Decision criteria will also be developed for identifying sewer rehabilitation/replacement needs based on the inspection data and condition ratings. The work under this subtask will be coordinated with and incorporated into the development of the District's History Inventory Maintenance Condition Assessment Database (HIMCAD) being prepared by Open Spatial Enterprises). The condition assessment approach will also be incorporated into the Measures and Activities element of the District's SSMP under Task 3.

Subtask 2.1.3 – Develop Sewer Rehabilitation Plan. Based on existing maintenance history and sewer inspection data, information on sewer age and material, results of the SHECAP analysis of the cost-effectiveness of sewer rehabilitation to reduce I/I, and discussions with District staff on problem areas in the sewer system, a plan for near-term and long-term sewer rehabilitation/replacement will be developed. This plan will provide the basis for estimating preliminary budgets for sewer rehabilitation and replacement for purposes of capital planning. In subsequent years, as additional sewer inspection data is collected and analyzed using the methodology developed in Subtask 2.2.2, these estimates will be refined and specific projects identified for inclusion in future CIPs.

Subtask 2.1.4 – Prepare Sewer Replacement Master Plan. The Sewer Replacement Master Plan will consist of a summary report incorporating the results and recommendations of the SHECAP and sewer rehabilitation plans, including estimated costs for recommended capital projects.

Subtask 2.2 – Force Main Replacement Master Plan. The Force Main Replacement Master Plan will address capital requirements for providing adequate force main hydraulic capacity and for rehabilitating, replacing, or paralleling existing force mains to provide adequate structural integrity and system reliability.

Subtask 2.2.1 – Review Previous Reports and Identify Additional Force Main Condition Assessment Needs. RMC will review the findings and recommendations of the 1998 Force Main Improvement Program Report, previous force main corrosion studies and other investigative reports, and SHECAP project findings with respect to

force main capacity requirements. Based on this review and discussions with District staff, RMC will identify additional condition assessment, corrosion studies, and/or hydraulic analyses needed to determine force main rehabilitation and replacement needs.

Subtask 2.2.2 – Conduct Preliminary Field Investigation. A preliminary field investigation including visual inspection and limited testing will be conducted in order to develop priorities, field testing/inspection requirements, and a budget estimate for the force main assessment in the following subtask.

Subtask 2.2.3 – Conduct Force Main Corrosion Assessment. This subtask will include field testing, such as pipe-to-soil potential surveys, electrical continuity and electrical isolation testing, and soil sampling and laboratory analyses, as identified under Subtask 2.2.2. The field data will be analyzed to assess the condition of the force mains.

Subtask 2.2.4 – Develop Force Main Improvement Recommendations. Based on the corrosion assessment, SHECAP results, and analyses completed in previous reports, force main improvement projects will be developed.

Subtask 2.2.5 – Prepare Force Main Replacement Master Plan. RMC will prepare a Force Main Replacement Master Plan report incorporating the results and recommendations of previous and new force main studies, including estimated costs for recommended capital projects.

Subtask 2.3 – Pump Station Replacement Master Plan. The Pump Station Replacement Master Plan will address capital requirements for providing adequate pump station hydraulic capacity and for rehabilitating, replacing, or upgrading existing pump stations to provide adequate capacity and system reliability.

Subtask 2.3.1 – Review Previous Reports and Plans and Identify Additional Pump Station Assessment Needs. RMC will review previous design reports for completed and planned pump station improvements, and the findings and recommendations of the on-going SHECAP project with respect to pump station capacity requirements. RMC will also review studies and plans related to downstream systems (e.g., San Quentin and Sanitary District No. 2) that affect the District's pumping requirements to convey flow to Central Marin Sanitation Agency (CMSA) facilities. Based on these reviews and discussions with District staff, RMC will recommend additional condition or operational assessments and/or hydraulic analyses, if needed, to determine pump station rehabilitation and replacement needs.

Subtask 2.3.2 – Conduct Pump Station Assessments. Based on the conclusions of the previous subtask, field assessments of selected pump stations will be conducted. The assessments will involve review of available record drawings, pump specifications, operations data, and maintenance records, interviews with District staff, and visual inspection of pump station facilities. Specific needs for each pump station will be identified based on these assessments. For purposes of estimating the budget for this subtask, it is assumed that the assessments will include all of the

District's lift stations and minor pump stations, and the major pump stations that have not been addressed by recent improvement projects.

Subtask 2.3.3 – Develop Pump Station Improvement Recommendations. Based on the pump station assessments, SHECAP results, and analyses completed for previous projects, pump station improvement projects will be developed.

Subtask 2.3.4 – Prepare Pump Station Replacement Master Plan. RMC will prepare a Pump Station Replacement Master Plan report incorporating the results and recommendations of previous and new pump station studies, including estimated costs for recommended capital projects.

Deliverables: TMs on Sewer Condition Assessment Approach and Sewer Rehabilitation Recommendations, Review of Force Main Plans and Studies, and Review of Pump Station Plans and Studies; Draft and Final Sewer, Force Main, and Pump Station Replacement Master Plan reports.'

Task 3: Sewer System Management Planning

Objective: Develop and implement plans, procedures, and tools to provide for the day-to-day management of the sewer system and long-term planning for management of system assets. Comply with regional and State regulatory requirements pertaining to sewer system operation, maintenance, and management.

RMC will oversee the preparation of a Sewer System Management Plan (SSMP) to comply with new requirements of the RWQCB (per letter dated July 7, 2005, pursuant to Section 13267 of the California Water Code) and potential future statewide Waste Discharge Requirements (WDR) for sewer collection systems expected to be adopted by the State Water Resources Control Board (SWRCB). This task will include preparation of a "gap analysis" to compare current District practices and procedures with requirements for implementing a SSMP, as described in the SSMP Development Guide prepared by the RWQCB and Bay Area Clean Water Agencies (BACWA); and will identify needed enhancements to current practices to comply with SSMP requirements. Based on the gap analysis, specific work items to enable the District to put into place the required SSMP elements will be defined and conducted. The preparation of the SSMP will incorporate the relevant results and recommendations of previous tasks and be structured as an integral part of an overall asset management program for the District. In addition, an evaluation of options for dealing with private laterals will also be conducted.

Subtask 3.1 – SSMP Gap Analysis. The SSMP includes the following ten elements:

- Goals
- Organization
- Overflow emergency response plan
- Fats, oils, and grease (FOG) control program
- Legal authority
- Measures and activities
- Design and construction standards
- Capacity management

- Monitoring, measurement, and program modifications
- SSMP audits

The gap analysis will address the current status of each of these elements at Ross Valley Sanitary District based on review of existing data and information and interviews with District staff. The SSMP gap analysis will be prepared by Larry Walker Associates under contract to the District. RMC will review the gap analysis results and summarize existing or planned efforts that will address any of the identified gaps in SSMP elements (e.g., SHECAP, HIMCAD); and recommend activities to fill the gaps in any remaining elements. A budget estimate will be prepared for implementing any of the elements that are not being addressed by other separate efforts

Subtask 3.2 – Establish Sewer System Management Goals. This subtask will formalize the goals of the SSMP as well as provide the basis for defining and prioritizing capital improvement projects. RMC recommends that sewer system management goals be formulated to reflect desired levels of service with respect to system performance, resource optimization, workplace quality and safety, financial parameters, and other considerations that reflect the overall management objectives of the District and its customers. These goals and levels of service could be established through a series of workshops with District staff, Board of Directors, and interested stakeholders.

Subtask 3.3 – Develop SSMP Elements. Based on the results of the gap analysis, the elements of the SSMP will be developed, as follows:

Subtask 3.3.1 - Define District Organization - The responsibilities and lines of communication of District staff members for implementation of the SSMP and for reporting and responding to sanitary sewer overflows (SSOs) will be identified and defined.

Subtask 3.3.2 - Develop Emergency Overflow Emergency Response Plan - The District's Overflow Emergency Response Plan will be developed or updated, as needed, including addressing procedures for notification, response, reporting, and impact mitigation.

Subtask 3.3.3 - Develop FOG Control Program - The District's FOG Control Program will be developed or updated, as needed, including a sewer cleaning plan to address existing or potential FOG problems, source control, facility inspection, and legal authority to prohibit FOG discharges to the collection system.

Subtask 3.3.4 - Establish Requirements for Legal Authority - Required modifications to sewer use and other related ordinances will be recommended to ensure that the District has the legal authority to control I/I and require proper design, construction, installation, testing, and inspection of new or rehabilitated sewer facilities.

Subtask 3.3.5 - Develop Measures and Activities - Necessary steps to implement the measures and activities required in the SSMP will be developed and/or documented, including maintaining collection system maps; allocation of resources

and budget for system operation, maintenance, and repair; implementing prioritized preventive maintenance, inspection, and condition assessment programs; providing for contingency equipment and replacement inventories; staff training; and outreach to plumbers and building contractors. Some of these measures and activities will be implemented as part of other on-going efforts (e.g., system mapping, recommendations for sewer inspection and condition assessment). Recommendations and plans for other measures and activities will be developed or updated as needed to meet the requirements of the SSMP.

Subtask 3.3.6 - Update Design and Construction Standards - Modifications to the District's existing design and construction standards will be recommended to ensure that new or rehabilitated sewer facilities will minimize operation and maintenance problems and the entry of I/I into the system, and will operate reliably and remain in good structural condition over the course of their anticipated useful lives. Recommendations will address standards for installation, rehabilitation, repair, inspection, and testing of new and rehabilitated facilities.

Subtask 3.3.7 - Monitoring, Measurement, Program Modifications, and SSMP Audits - Procedures for monitoring and measuring the effectiveness of the SSMP elements will be established. Performance indicators that should be tracked will be defined, and procedures for reviewing and modifying the program in accordance with the monitoring results will be established. A description and format for an SSMP Audit report will also be developed.

Subtask 3.4 – Prepare SSMP Document. Based on the work performed under the previous subtasks, an SSMP document will be prepared.

Subtask 3.5 – Develop Lateral Policy. Under this subtask, potential options for implementing inspection and repair of private laterals will be evaluated, and viable options identified for the District's consideration. Options may include requiring inspection or testing and repair at sale of property; inclusion of private lateral rehabilitation in public sewer replacement projects; and/or implementation of a grant program for lateral rehabilitation. Options will be evaluated from the standpoint of technical, institutional, and financial considerations, and recommendations for a District lateral policy and/or program will be developed.

Deliverables: Draft and Final SSMP Gap Analysis report; SSMP element sections, to be incorporated into Draft and Final SSMP Document; TM on lateral policy options.

Task 4: Capital Improvement Strategic Plan

Objective: Develop a prioritized 10-year plan for recommended capital improvements, including a financial plan for the design and construction of the improvements.

RMC will prepare a Capital Improvement Strategic Plan that describes how the District's 10-year Capital Improvement Program (CIP) will be implemented. The Strategic Plan will incorporate and prioritize the capital project recommendations developed in each of the Facilities Master Plans, and will include a financial plan and schedule for implementing the CIP. The subtasks included in this task are:

Subtask 4.1 – Establish CIP Objectives and Criteria. Based on the program goals and target levels of service established in Subtask 3.2, RMC will work with the District to define the objectives of the CIP and establish evaluation criteria for prioritizing CIP projects.

Subtask 4.2 – Develop Criteria and Format for CIP Project Cost Estimates. Consistent criteria for formulating and presenting costs of CIP projects will be developed so that projects developed under all facilities master plans can be compared on the same cost basis.

Subtask 4.3 – Prioritize Capital Improvement Projects. RMC will use a decision analysis approach to prioritize CIP projects. Evaluation criteria and relative weights will be assigned in a workshop setting involving District staff and, if appropriate, other stakeholders.

Subtask 4.4 – Develop CIP Schedule and Budget. Based on the CIP project costs and priorities established in previous subtasks, RMC will develop a 10-year CIP showing the proposed schedule for design and construction of the recommended CIP projects. RMC will work with the consultant performing the financial analysis in Subtask 4.5 to incorporate flexibility into the CIP to accommodate a range of funding scenarios.

Subtask 4.5 – Financial Analysis. RMC will provide project cost information to the District's financial consultant, Bartle Wells, and will provide any technical support required, e.g., evaluation of outside funding options such as grants and loans, to supplement the consultant's analysis of available funding opportunities. RMC will also provide input as requested regarding funding options as they relate to District goals. RMC will assist the consultant with technical aspects of communications or presentations related to the proposed financial plan.

Subtask 4.6 – Prepare Strategic Plan. The Strategic Plan will summarize the results and recommendations of each of the facilities master plans (from Task 2), discuss the CIP prioritization process, and present the recommended 10-year CIP and financial plan.

Subtask 4.7 – Prepare Grant or Loan Applications (Optional). RMC will assist the District in preparation of applications for grants or loans to finance sewer system capital improvements.

Deliverables: Technical Memoranda (TMs) on CIP criteria; decision analysis workshop materials; Draft and Final Strategic Plan report.

Task 5: Design and Construction Program Management (Optional)

Objective: Assist the District in implementation of the design and construction phase of the Capital Improvement Program.

Work items under this task may include:

- Development, monitoring, and control of a Master Schedule and Budget for the design and construction of capital improvement projects
- Development of consultant lists for various Requests for Proposals

- Development of common design standards and front-end specifications
- Preparation of Requests for Proposals for design, construction management, and other services
- Assistance with review of design services proposals and/or contract scopes and budgets
- Facilitation of communication and coordination between consultants
- Provision of 3rd party quality assurance and quality control, including hosting regular user groups to provide review of contract documents (plans and specifications) prepared by others
- Interface with District Board, staff, and outside stakeholders on public outreach issues related to design and construction
- Bid period assistance
- Management of construction management and oversight activities, including 3rd party claims evaluation

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